

1. Device for the quantified determination of the properties of surfaces having:

a1
a first optical means comprising at least one illuminating means, its light directed at a predetermined angle to a measurement surface which is a part of the surface to be measured, as well as a second optical means which is directed at a predetermined angle to the measurement surface and which receives the light reflected from said measurement surface, whereby said second optical means comprises at least one photosensor which emits an electrical measurement signal which is characteristic of said reflected light;

a control and evaluation means provided for controlling the measurement sequence and evaluating the measurement results and which comprises at least one processor and at least one memory means;

an output means;

wherein said illuminating means comprises at least one light source which is a light-emitting diode (LED),

said light sources of said illuminating means exhibit spectral characteristics such that radiation is emitted essentially uninterruptedly across essentially the entire visible spectrum;

wherein at least one intensity of one light source is controllable;

whereby a filter means is provided which is arranged in the path of radiation between said light source and said photosensor, and

wherein said evaluation means evaluates said reflected light and derives therefrom at least one parameter which characterizes said surface, in particular the fluorescence.

a2
3. Device according to claim 1, characterized in that at least one of said at least one characteristic parameter is taken from among a group of parameters which includes gloss, haze, fluorescence, distinctness of image (DOI), a representative measure of the typical wavelength and the amplitude of same (orange peel) of the surface topology of said measurement surface at a predetermined wavelength interval.

a3
7. Device according to claim 1, characterized in that said illuminating means comprises a plurality of light sources, wherein each of said light sources is a type of light source which is taken from among a group of light sources which includes light-emitting diodes, thermal light sources such as normal and halogen bulbs or such as mercury, deuterium or xenon light sources.